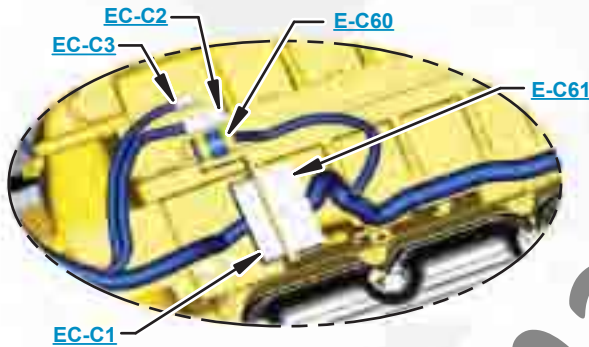


The Bookmarks panel will allow you to quickly navigate to points of interest.

****This document is best viewed at a screen resolution of 1024 X 768.***

To set your screen resolution do the following:
RIGHT CLICK on the **DESKTOP**.
 Select **PROPERTIES**.
CLICK the **SETTINGS TAB**.
MOVE THE SLIDER under **SCREEN RESOLUTION** until it shows **1024 X 768**.
CLICK OK to apply the resolution.

**Due to different monitor sizes and PDF reader preferences there may be some variance in linked schematic locations*



Click on any text that is **BLUE** and underlined. These are hyperlinks that can be used to navigate the schematic and machine views



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VIEW ALL CALLOUTS

When only one callout is showing on a machine view, clicking on this button will make all of the callouts visible. This button is located in the top right corner of every machine view page.

HOTKEYS (Keyboard Shortcuts)		
	FUNCTION	KEYS
	Zoom In	“CTRL” / “+”
	Zoom Out	“CTRL” / “-”
	Fit to Page	“CTRL” / “0” (zero)
	Hand Tool	“SPACEBAR” (hold down)
	Find	“CTRL” / “F”

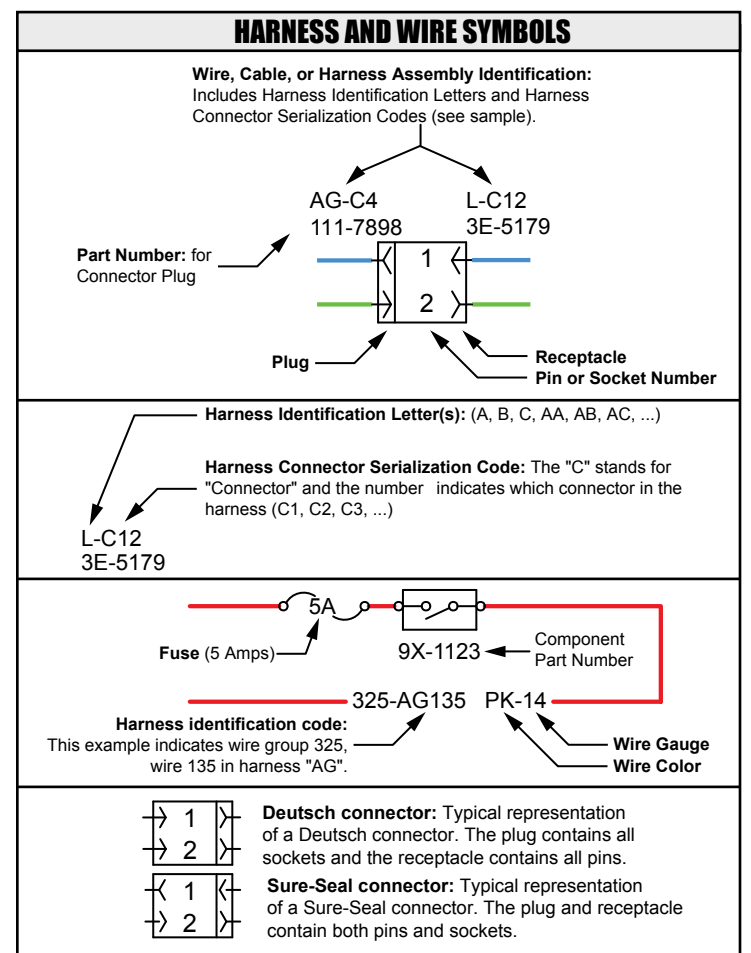
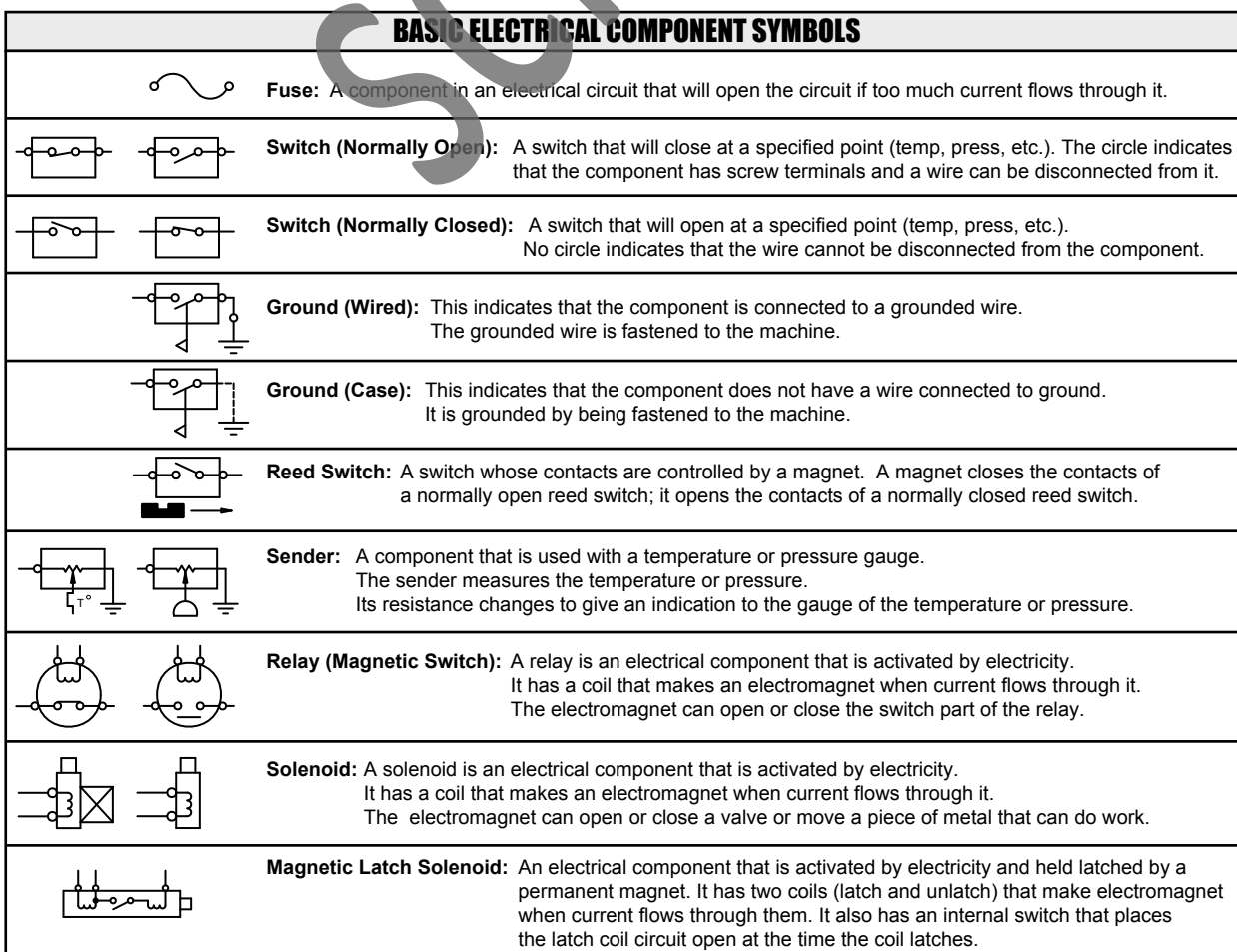
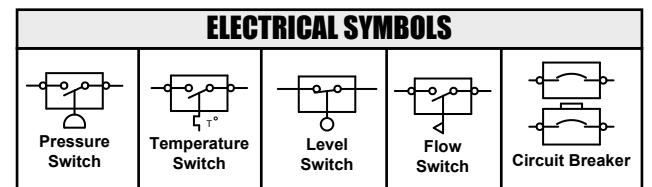
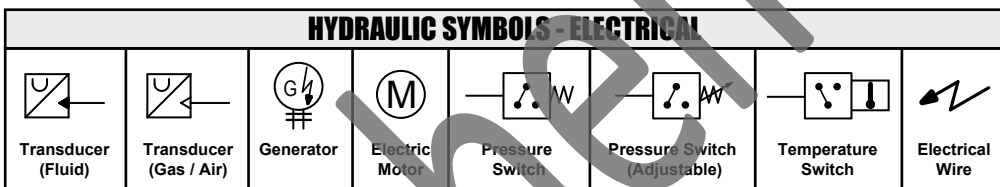
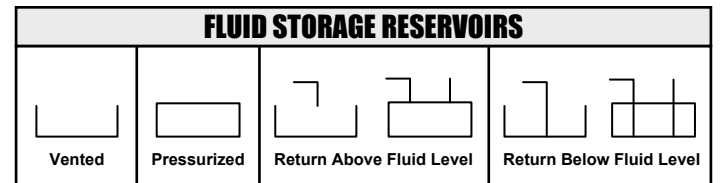
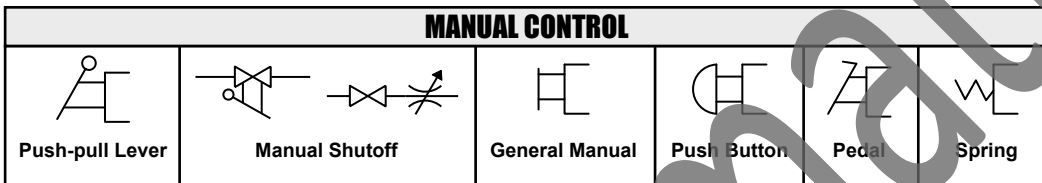
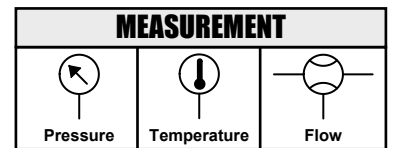
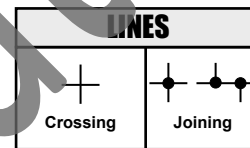
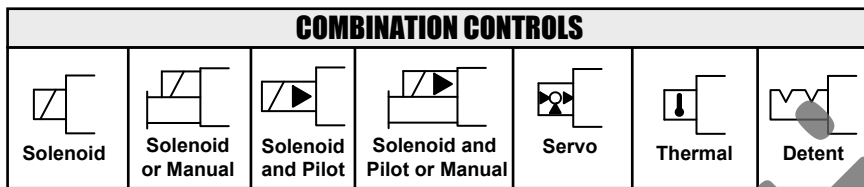
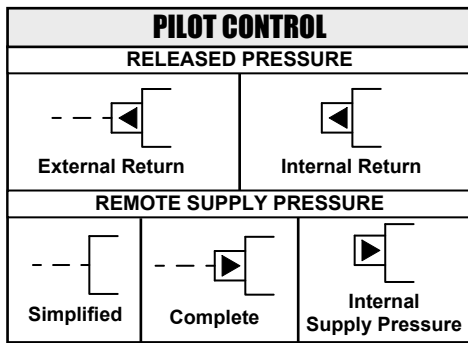
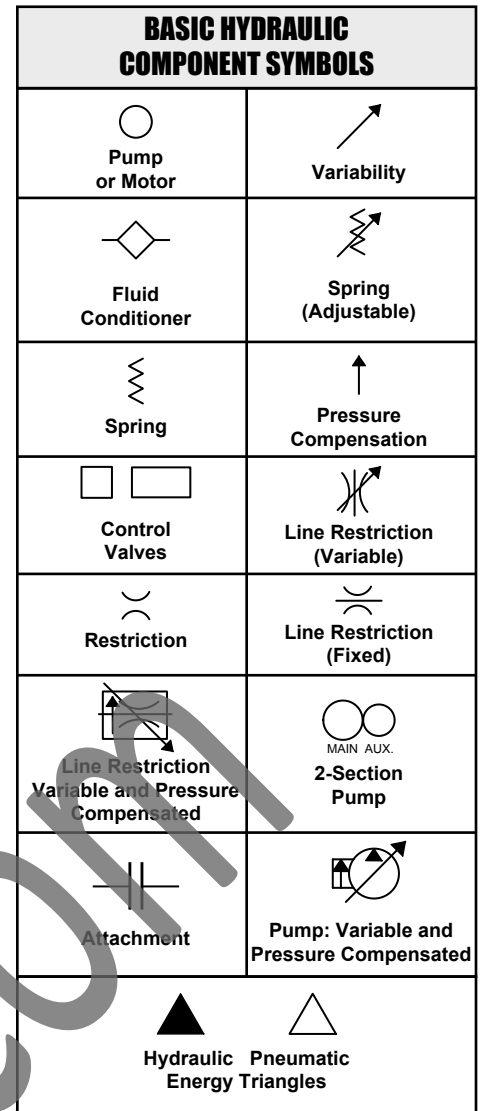
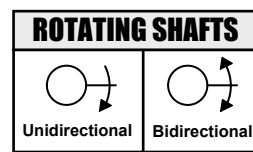
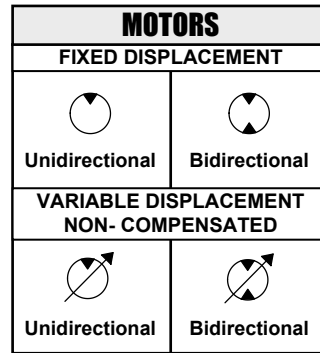
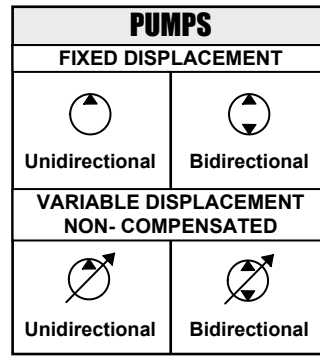
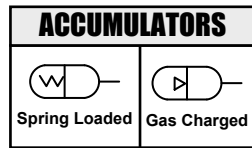
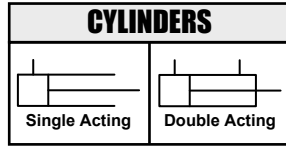
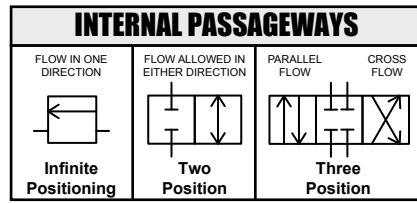
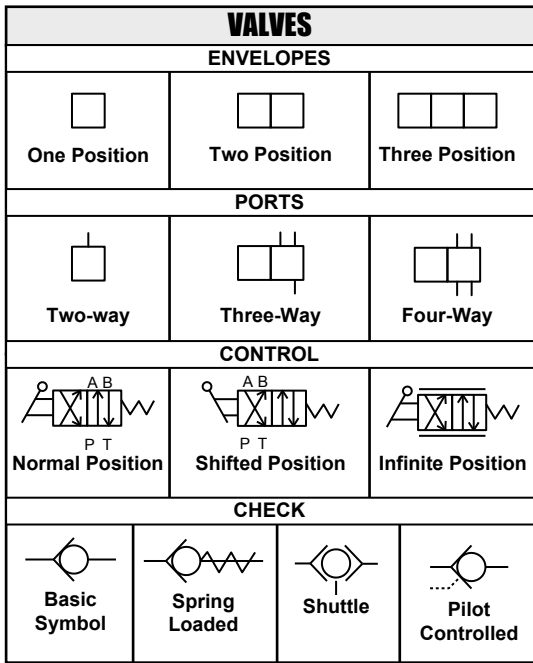
ELECTRICAL SYMBOLS				
Pressure Switch	Temperature Switch	Level Switch	Flow Switch	Circuit Breaker

BASIC HYDRAULIC COMPONENT SYMBOLS	
Pump or Motor	Variability
Fluid Conditioner	Spring (Adjustable)

[Click here to view the Schematic Symbols and Definitions page](#)



SCHEMATIC SYMBOLS AND DEFINITIONS



Schematic

D7E Track-Type Tractor Electrical System

TJA1-UP
TAN1-UP

Volume 1 of 2: Engine & Chassis

Volume 2 of 2: Cab

COMPONENT LOCATION

Volume 1 of 2 - ENGINE and CHASSIS



Volume 1 - Component Location					
Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Actuator - ARD Air Flow Control	E-4	1	Sensor - Fuel Pressure Filter (Before)	F-1	72
Alarm - Backup	H-16	2	Sensor - Fuel Rail Pressure	H-2	73
Batteries	A-15	3	Sensor - Fuel Temperature	G-1	74
Block - Junction	B-16	4	Sensor - Generator Speed Sensor #1	D-6	75
Coil - ARD Ignition	D-3	5	Sensor - Generator Speed Sensor #2	D-6	76
Compressor - HVAC	J-16	6	Sensor - Hydraulic Oil Temperature	J-9	77
Control - Coolant Pump	A-8	7	Sensor - Hydraulic Pump Oil Pressure	C-6	78
Control - Engine	H-5	8	Sensor - Intake Manifold Air Temperature	G-2	80
Control - Generator	F-15	9	Sensor - Motor ECM Drive Motor Speed #1	J-13	81
Control - Motor	H-15	10	Sensor - Motor ECM Drive Motor Speed #2	J-13	82
Controller - ARD Air Flow	E-3	11	Sensor - NOx Differential Pressure	C-2	83
Converter - Accessory Power	B-13	12	Sensor - NOx Intake Pressure	G-2	84
Ground - CEM	B-3	13	Sensor - NOx Temperature	G-2	85
Ground - Chassis (Starter Motor)	I-5	14	Sensor - Powertrain Lube Pressure	I-12	86
Ground - Coolant Pump	D-3	15	Sensor - PTO Tank Temperature	G-2	87
Ground - Engine	I-6	16	Sensor - Soot	C-5	88
Ground - Frame #1	I-16	18	Sensor - Steering Charge Pressure	D-6	89
Ground - Frame #2	A-10	19	Sensor - Steering Motor Speed	I-13	90
Ground - Frame #3	A-10	20	Sensor - Turbo Inlet Air Pressure	J-4	91
Ground - Frame (Disconnect Switch)	I-8	21	Solenoid - ARD Fuel Flow Diverter Actuator	F-1	94
Ground - Frame (Power Inverter)	E-12	22	Solenoid - ARD Fuel Press. Ctrl Act. #1 (Pilot)	D-3	95
Ground - Front Chassis	A-8	23	Solenoid - ARD Fuel Press. Ctrl Act. #2 (Main)	D-3	96
Ground - Fuel Tank	A-13	24	Solenoid - Blade (Lower)	C-2	97
Ground - Generator Stator	I-6	25	Solenoid - Blade (Raise)	C-2	98
Ground - Tilt Frame	A-12	26	Solenoid - Brake Pressure Modulation	I-13	99
Heater - ARD Fuel Nozzle	D-4	27	Solenoid - Engine Cooling Fan	C-6	100
Horn - High	D-2	28	Solenoid - Fuel Pump #1	H-2	101
Horn - Low	D-2	29	Solenoid - Fuel Pump #2	H-2	102
Inverter - Power	G-13	30	Solenoid - Implement Lockout	J-9	103
Module - Aftertreatment	E-3	31	Solenoid - Injectors# 1-6	J-1	104
Module - Electric Drive Propulsion Module	H-11	32	Solenoid - NOx Flow Balance Valve Actuator	G-2	105
Motor - ARD Fuel Pump	F-1	33	Solenoid - NOx Valve Actuator	H-2	106
Motor - Starter	I-5	34	Solenoid - Parking Brake	I-13	107
Motor - Washer (LH)	G-13	35	Solenoid - Reversing Fan	B-2	108
Motor - Washer (Rear)	G-13	36	Solenoid - Service Brake	I-13	109
Motor - Washer (RH)	B-13	37	Solenoid - Start Aid	J-4	110
Motor - Water Jacket Pump	A-8	38	Solenoid - Steering Pump (LH)	C-6	111
Probe - TDC Service	I-2	39	Solenoid - Steering Pump (RH)	C-6	112
Relay - ARD Fuel Nozzle Heater	C-3	46	Solenoid - Tilt (Left)	C-2	113
Resistor - Terminating (Engine)	C-5	47	Solenoid - Tilt (Right)	C-2	114
Resistor - Terminating (J1939)	G-2	48	Solenoid - Tilt Cylinder Extend (Left)	B-2	115
Resistor - Terminating A2	J-4	49	Solenoid - Tilt Cylinder Retract (Left)	B-2	116
Resistor - Terminating B+	G-8	50	Stator - Generator	I-6	117
Resistor - Terminating B2	B-2	51	Switch - Auxiliary Disconnect	B-14	118
Resistor - Terminating D1	B-2	52	Switch - Disconnect	J-8	119
Resistor - Terminating D2	G-8	53	Switch - Hydraulic Filter Bypass	J-9	120
Resistor - Terminating F2	I-15	210	Switch - Underhood Worklamp	J-4	121
Sensor - Aftertreatment 1 Sec Air Pressure	C-3	92	Switch - Ingress Lighting	J-9	122
Sensor - Aftertreatment Intake	E-3	54	Switch - Remote Shutdown	I-9	123
Sensor - Air Inlet Temperature	J-4	55	Rear Implement Valve		
Sensor - ARD Fuel Pressure #1 (Pilot)	D-3	56	Solenoid - 3rd Function Valve Port A	B-14	124
Sensor - ARD Fuel Pressure #2 (Main)	D-3	57	Solenoid - 3rd Function Valve Port B	B-14	125
Sensor - Auxiliary Temperature	D-15	93	Solenoid - Ripper Lower	C-14	126
Sensor - Barometric Pressure	H-2	58	Solenoid - Ripper Raise	C-14	127
Sensor - Charge Air Cool Out Temperature	G-2	59	Solenoid - Ripper Shank In	C-14	128
Sensor - Coolant Temperature	G-2	60	Solenoid - Ripper Shank Out	C-14	129
Sensor - Crankcase Pressure	H-2	61	Ripper Valve		
Sensor - Delta Pressure	C-3	62	Solenoid - Ripper Lower (Ripper)	D-14	130
Sensor - DPF Intake Pressure	C-3	63	Solenoid - Ripper Raise (Ripper)	D-14	131
Sensor - Drive Motor Winding Temperature #1	I-11	64	Solenoid - Ripper Shank In (Ripper)	D-14	132
Sensor - Drive Motor Winding Temperature #2	I-11	65	Solenoid - Ripper Shank Out (Ripper)	C-14	133
Sensor - Engine Oil Pressure	H-2	66	Winch Valve		
Sensor - Engine Speed	E-6	67	Solenoid - Drum Release	D-13	134
Sensor - Engine Speed Timing A (CAM)	F-3	68	Solenoid - Winch In	D-13	135
Sensor - Engine Speed Timing B (CRANK)	F-3	69	Solenoid - Winch Low Speed Lock	C-13	136
Sensor - Fuel Level	D-15	70	Solenoid - Winch Out	D-13	137
Sensor - Fuel Pressure Filter (After)	F-1	71			

COMPONENT LOCATION

Volume 2 of 2 - CAB



Volume 2 - Component Location					
Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
12V Accessory Socket #1	G-13	138	Resistor - HVAC	J-13	179
12V Accessory Socket #2	J-11	139	Resistor - Terminating F1	I-15	180
12V Converter	I-7	140	Sensor - A/C Evaporator Coil Temperature	J-13	181
20A Converter	J-7	141	Sensor - Ambient Air Temperature	J-13	182
Alarm - Accugrade	E-2	142	Sensor - Brake/Deceleration Pedal Position	G-2	183
Alarm - Action	A-10	143	Sensor - Steering Position	H-9	184
Block - Fuse	G-5	211	Switch - A/C Enable	I-4	185
Control - HVAC Compressor	J-14	144	Switch - A/C Refrigerant	J-13	186
Control - Implement	D-15	145	Switch - Brake Dump Limit	H-2	187
Control - Machine	H-15	146	Switch - Cab Throttle	I-10	188
Control - Product Link	J-3	147	Switch - CRS Regeneration	A-5	189
Control - Product Link (PL321)	J-2	148	Switch - Cylinder Floods	A-6	190
Ground - Cab #1	D-7	152	Switch - Cylinder Floods w/ HID	A-6	191
Ground - Cab #2	G-5	153	Switch - Door (LH)	I-5	192
Ground - Cab ROPS #1	J-12	154	Switch - Door (RH)	B-6	193
Ground - Cab ROPS #2	J-12	155	Switch - Engine Fan Reverse	A-6	194
Ground - Fuse Panel #1	F-5	156	Switch - Forward ROPS Floods	A-6	195
Ground - Fuse Panel #2	F-5	157	Switch - Forward Side ROPS HID	A-6	196
Module - Slope Sensor	I-15	165	Switch - Horn	I-9	197
Motor - Blower	J-13	166	Switch - Implement Lockout	D-10	198
Motor - Condenser	I-13	167	Switch - Key	D-10	199
Motor - Precleaner	I-13	168	Switch - Operator Present	G-9	200
Motor - Seat Compressor	G-9	169	Switch - Parking Brake	I-9	201
Motor - Wiper (LH)	I-5	170	Switch - Rear & Ripper Floods	A-6	202
Motor - Wiper (Rear)	E-16	171	Switch - Rear ROPS Floods	A-6	203
Motor - Wiper (RH)	B-6	172	Switch - Seat Compressor	G-9	204
Panel - HVAC	J-4	173	Switch - Winch Lockout	E-9	205
Relay - Forward Floods	F-3	175	Switch - Wiper (LH)	J-5	206
Relay - Ingress Lighting	F-3	176	Switch - Wiper (Rear)	J-5	207
Relay - Main	D-4	177	Switch - Wiper (RH)	J-5	208
Relay - Priming Pump	F-3	178	Valve - Water	J-13	209

CONNECTOR LOCATION

Volume 1 of 2 - ENGINE and CHASSIS



Volume 1 - Connector Location	
Connector Number	Schematic Location
CONN 1	C-15
CONN 2	C-16,D-14,D-15
CONN 3	I-14
CONN 4	C-11
CONN 5	D-12
CONN 6	E-12
CONN 7	I-12
CONN 8	I-12
CONN 9	E-10
CONN 10	E-10
CONN 11	F-10
CONN 12	F-10
CONN 13	I-10
CONN 14	C-9
CONN 15	E-8
CONN 16	C-7
CONN 17	D-7
CONN 18	C-5
CONN 19	I-5
CONN 20	C-2
CONN 21	F-2
CONN 22	D-2
CONN 23	E-2
CONN 24	F-2
CONN 25	I-2
CONN 26	J-2
CONN 27	J-2

The connectors shown in this chart are for harness to harness connectors. Connectors that join a harness to a component are generally located at or near the component. See the Component Location Chart.

CONNECTOR LOCATION

Volume 2 of 2 - CAB



Volume 2 - Connector Location	
Connector Number	Schematic Location
CONN 5	B-13
CONN 6	B-11
CONN 28 Work Area Viewing System	I-15
CONN 29	I-15
CONN 30	C-12
CONN 31	D-12
CONN 32	F-12
CONN 33	H-13
CONN 34	E-11
CONN 35	F-11
CONN 36	I-12
CONN 37	I-12
CONN 38	G-10
CONN 39	I-10
CONN 40	F-8
CONN 41	F-8
CONN 42	J-7
CONN 43	E-6
CONN 44	A-2, E-5
CONN 45 Service Connector	E-5
CONN 46	I-5
CONN 47 Accugrade Service Connector	D-3
CONN 48	D-3
CONN 49	E-3
CONN 50	G-2

The connectors shown in this chart are for harness to harness connectors. Connectors that join a harness to a component are generally located at or near the component. See the Component Location Chart.

CID / MID / FMI

Volume 1 of 2 - ENGINE and CHASSIS



Component Identifiers (CID ¹)	
Module Identifier (MID ²)	
Generator Control System	
(Module Description - Generator)	
CID	Component
0168	Electrical System Voltage
1326	ECM Location Code
1603	Machine Control Module
2774	Generator Speed Sensor
2778	Power Converter Temperature Sensor
2792	Generator Phase A Current Sensor
2793	Generator Phase B Current Sensor
2794	Generator Phase C Current Sensor
2800	Power Converter #1 ECM Power Supply Output #3
2934	DC Power Bus Voltage #1 Sensor
2935	DC Power Bus Voltage #2 Sensor
3030	Line To Line Voltage Sensor
3034	Secondary Generator Speed Sensor
3041	12 Volt Sensor Power Supply
3049	15 Volt Sensor Power Supply
3207	(-)15 Volt Sensor Power Supply
3428	Generator Control Module
3429	Motor Control Module
3430	Power Converter Control Module
Motor Control System	
(Module Description - Motor)	
CID	Component
0168	Electrical System Voltage
1326	ECM Location Code
1603	Machine Control Module
2779	Power Converter 2 Temperature Sensor
2789	Drive Motor Phase A Current Sensor
2790	Drive Motor Phase B Current Sensor
2791	Drive Motor Phase C Current Sensor
2934	DC Power Bus Voltage 1 Sensor
2935	DC Power Bus Voltage 5 Sensor
3041	12 Volt Sensor Power Supply
3049	15 Volt Sensor Power Supply
3207	(-)15 Volt Sensor Power Supply
3271	Drive Motor Speed Sensor #1 Signal #1
3272	Drive Motor Speed Sensor #1 Signal #2
3273	Drive Motor Speed Sensor #2 Signal #1
3274	Drive Motor Speed Sensor #2 Signal #2
3428	Motor Control Module
3429	Motor Control Module
3430	Power Converter Control Module
Engine Control System	
(MID No. 036)	
CID	Component
0001	Cylinder #1 Injector
0002	Cylinder #2 Injector
0003	Cylinder #3 Injector
0004	Cylinder #4 Injector
0005	Cylinder #5 Injector
0006	Cylinder #6 Injector
0041	8 Volt DC Supply
0100	Engine Oil Pressure Sensor
0101	Crankcase Air Pressure Sensor
0110	Engine Coolant Temperature Sensor
0168	Electrical System Voltage
0174	Fuel Temperature Sensor
0190	Engine Speed Sensor
0246	Proprietary CAN Data Link
0247	SAE J1939 Data Link
0253	Personality Module
0261	Engine Timing Calibration
0267	Remote Shutdown Input
0274	Atmospheric Pressure Sensor
0289	Fuel Pressure Sensor
0291	Engine Cooling Fan Solenoid
0338	Engine Pre-Lube Pump Relay
0342	Secondary Engine Speed Sensor
0460	Fuel Pressure Sensor
0485	Engine Fan Reversing Solenoid
0596	Implement Control
1603	Machine Control Module
1779	Fuel Rail #1 Pressure Valve Solenoid
1780	Fuel Rail #2 Pressure Valve Solenoid
1785	Intake Manifold Pressure Sensor
1797	Fuel Rail Pressure Sensor
1836	Auxiliary Temperature Sensor
2131	5 Volt Sensor DC Power Supply #2

Event Codes	
Generator Control	
E0655	DC Power Bus Voltage High
E0657	Generator Phase A Current High
E0658	High Power Converter (Inverter) 1 Temperature
E0673	DC Power Bus 1 Voltage Low
E0675	Generator Phase B Current High
E0676	Generator Phase C Current High
E0896	Power Converter Interface Module Enable Signal Mismatch
E0985	High Generator Position Sensing Offset
E1084	Generator Current Not Responding to Command
E1085	Generator Overspeed
E1151	Generator Phase Current Imbalance
E2169	Power Train Disabled Due To System Fault
Event Codes	
Motor Control	
E0395	Transmission Stall Condition
E0655	DC Power Bus 1 Voltage High
E0659	High Power Converter (Inverter) 2 Temperature
E0668	Drive Motor Phase A Current High
E0669	Drive Motor Phase B Current High
E0670	Drive Motor Phase C Current High
E0673	DC Power Bus 1 Voltage Low
E0694	Drive Motor Overspeed
E0719	High Drive Motor Winding Temperature
E0761	Drive Motor Phase Current Imbalance
E0896	Power Converter Interface Module Enable Signal Mismatch
E2169	Power Train Disabled Due To System Fault
Event Codes	
Engine Control	
E0095	Engine Pre-lube Override
E0198	Low Fuel Pressure
E0233	Low Engine Pre-Lube Pressure
E0265	User Defined Shutdown
E0360	Low Engine Oil Pressure
E0361	High Engine Coolant Temperature
E0362	Engine Overspeed
E0363	High Fuel Supply Temperature
E0390	Fuel Filter Restriction
E0398	Low Fuel Rail Pressure
E0499	Fuel Rail #1 Pressure Leak
E0539	High Intake Manifold Air Temperature
E0583	High Air Inlet #1 Differential Pressure
E0593	Aftertreatment Insufficient Temperature to Complete Regeneration
E0678	Ground Level Shutdown
E0991	DPF Active Regeneration Inhibited Due to Permanent System Lockout
E0992	DPF Active Regeneration Inhibited Due to Temporary System Lockout
E0993	DPF Active Regeneration Inhibited Due to Inhibit Switch
E0995	High DPF #1 Soot Loading
E0997	High DPF #1 Ash Loading
E1008	High DPF #1 Intake Temperature
E1014	Low DPF #1 Intake Temperature
E1025	Aftertreatment #1 Failed to Ignite
E1026	Aftertreatment #1 Loss of Combustion
E1036	High Crankcase Pressure
E1040	ARD Manually Disabled
E1045	Low Intake Manifold Pressure
E1050	High Aftertreatment #1 Fuel Pressure #1
E1051	High Aftertreatment #1 Fuel Pressure #2
E1052	Low Aftertreatment #1 Fuel Pressure #1
E1053	Low Aftertreatment #1 Fuel Pressure #2
E1063	High Water Pump Control Module Temperature
E1070	Aftertreatment Fuel Injector #1 not responding
E1090	High EGR Temperature
E1092	High EGR Temperature
E1093	Low EGR Differential Pressure
E1094	High EGR Differential Pressure
E1095	Low EGR Mass Flow Rate
E1096	High EGR Mass Flow Rate
E1123	Engine Exhaust Manifold Bank #1 Flow Balance Valve Not Responding
E1154	Low DPF #1 Intake Pressure
E1156	High DPF #1 Intake Pressure
E1170	Low Aftertreatment #1 Secondary Air Pressure

Component Identifiers (CID ¹) Module Identifier (MID ²) Machine Control System (MID No. 039)	
CID	Component
0041	8 Volt DC Sensor Power Supply
0070	Parking Brake Switch
0168	Electrical System Voltage
0190	Engine Speed Sensor
0246	Proprietary CAN Data Link (CAN B)
0247	SAE J1939 Data Link (CAN A)
0262	5 Volt Sensor DC Power Supply
0473	Charge Pressure Sensor
0596	Implement Control
0681	Parking Brake Solenoid
0726	Right Hand Steering Solenoid
0727	Left Hand Steering Solenoid
0871	Slope Sensor
1326	ECM Location Code
1469	Steering Motor Speed Sensor #1
1470	Steering Motor Speed Sensor #2
1471	Steering Control Position Sensor #1
1472	Steering Control Position Sensor #2
1473	Steering Control Position Sensor #3
1482	10 Volt Sensor DC Power Supply
2305	Brake/Decelerator Pedal Position Sensor (Travel Control Pedal)
2500	Power Train Speed Range Control Position Sensor
2595	Service Brake Solenoid
2596	Brake Pressure Modulation Solenoid
2705	Cab Throttle Switch
2868	Power Train Oil Tank Temperature Sensor
2989	Reverse Desired Ground Speed Selection Switch (Travel Speed)
2993	Direction Selector (FNR) Position Sensor 1
2994	Direction Selector (FNR) Position Sensor 2
3083	Power Train Lube Pressure Sensor
3243	Water Pump Control Module
3428	Generator Control Module
3429	Motor Control Module
3527	Direction Selector Position
3642	Operator Speed Set/Recall Switch
3657	Operator In Seat Sensor
Implement Control Module (MID No. 082)	
0096	Fuel Level Sensor
0168	Electrical System Voltage
0171	Ambient Air Temperature Sensor
0247	J1939 Data Link
0262	5V Sensor DC Power Supply
0490	Implement Lockout Switch
0497	Tilt Right Solenoid
0498	Tilt Left Solenoid
0590	Engine Control Module
0600	Hydraulic Oil Temperature Sensor
0879	Ripper Shank In/Out Lever Sensor
0880	Ripper Raise/Lower Lever Sensor
0881	Ripper Auto Stow Switch
0882	Implement Lockout Solenoid
0886	Ripper Shank In Solenoid
0887	Ripper Shank Out Solenoid
0888	Ripper Shank Lower Solenoid
0889	Ripper Shank Raise Solenoid
1079	Blade Control Handle Lift Position Sensor
1197	Blade Control Handle Tilt Position Sensor
1197	Blade Lower Solenoid
1198	Blade Raise Solenoid
1298	All Implement Solenoids
1450	Main Hydraulic Pump Oil Pressure Sensor
1482	10 Volt Sensor DC Power Supply
1603	Machine Control Module
1870	Blade Thumb Rocker Position Sensor
1874	Winch Lockout Switch
1881	Winch Control Handle Spool In/Out Position Sensor
1882	Winch Control Handle Drum Release Position Sensor
1883	Winch Low Speed Lock Switch
1884	Winch Spool In Solenoid
1885	Winch Spool Out Solenoid
1886	Winch Drum Release Solenoid
1887	Winch Low Speed Lock Solenoid
2204	Auxiliary Lever 1 Position Sensor

Event Codes Implement Control	
Event Code	Condition
E0281	Steering Hydraulic Oil Filter Restricted
E0467	Blade Lift Control Out of Neutral at an Improper Time
E0468	Blade Tilt Control Out of Neutral at an Improper Time
E0469	Blade Pitch Control Out of Neutral at an Improper Time
E0472	Ripper Shank In/Out Lever Out of Neutral at an Improper Time
E0473	Ripper Lift Control Out of Neutral at an Improper Time
E0474	Ripper Autostow Switch Pressed at an Improper Time
E0475	Winch Spool In/Out Control Out Of Neutral At Improper Time
E0476	Winch Drum Release Control Out Of Neutral At Improper Time
E0655	High DC PowerBus
E0673	Low DC PowerBus
E0711	High Accessory Power Converter Temperature
E0712	High Accessory Power Output Voltage
E0713	Low Accessory Power Output Voltage
E0714	High Battery Charger Current
E0715	Ground Fault
E0788	Auxiliary Lever 1 Out of Neutral at an Improper Time
E0789	Auxiliary Lever 2 Out of Neutral at an Improper Time
E0790	Auxiliary Lever 3 Out of Neutral at an Improper Time
E0861	Clock Manual Alignment Required
E0875	Low System Voltage
E0876	High System Voltage
E0878	Hydraulic Oil Temperature High
E0887	Blade Function Disabled Due to System Fault
E0888	Ripper Function Disabled Due to System Fault
E0889	Winch Function Disabled Due to System Fault
E0929	Battery Charger System not Charging
E0987	High Battery Charger Temperature
E0988	DC Ground Fault
E0989	Drive Motor System AC Ground Fault
E0990	High Accessory Bus Current
E0991	Generator System AC Ground Fault
E1066	Water Pump System AC Ground Fault
E1071	Accessory Power Converter Cannot be Enabled
E1078	Air Conditioner System AC Ground Fault
E1136	Accessory Power Converter Ground Fault Detection Disabled
E2075	Winch Low Speed Lock Switch Depressed At Inappropriate Time
E2115	Implement Disabled Due to System Fault

Event Codes Machine Control	
Event Code	Condition
E0192	Steering System Malfunction
E0256	Steering in the Wrong Direction
E0257	Steering Output Detected With No Command
E0258	No Steering Detected With Command Given
E0283	Charge Pressure Low
E0658	High Power Converter (Inverter) 1 Temperature
E0659	High Power Converter (Inverter) 2 Temperature
E0692	Power Train Oil Tank Temperature High
E0719	High Drive Motor Winding Temperature
E0722	Power train Lube Pressure Low
E0756	Generator Voltage Low
E1064	Low Water Pump Speed
E1968	Power Train Lube Pressure Sensor Open
E2140	Power train Limited Due to System Fault

Failure Mode Identifiers (FMI) ¹	
FMI No.	Failure Description
0	Data valid but above normal operational range.
1	Data valid but below normal operational range.
2	Data erratic, intermittent, or incorrect.
3	Voltage above normal or shorted high.
4	Voltage below normal or shorted low.
5	Current below normal or open circuit.
6	Current above normal or grounded circuit.
7	Mechanical system not responding properly.
8	Abnormal frequency, pulse width, or period.
9	Abnormal update.
10	Abnormal rate of change.
11	Failure mode not identifiable.
12	Bad device or component.
13	Out of calibration.
14	Parameter failures.
15	Parameter failures.
16	Parameter not available.
17	Module not responding.
18	Sensor supply fault.
19	Condition not met.
20	Parameter failures.

¹The FMI is a diagnostic code that indicates what type of failure has occurred.

SPECIFICATIONS AND RELATED MANUALS

Volume 1 of 2 - ENGINE and CHASSIS



Related Electrical Service Manuals	
Title	Form Number
Cross Reference for Electrical Connectors:	REHS0970
Starting Motor: 348-3303	SENR3860
349-6530 ATCH	SENR3860
Engine Control Troubleshooting:	REN5066
Power Train Control Troubleshooting:	KENR5604
Monitoring System Troubleshooting:	KENR8246
Implement Control Troubleshooting:	KENR5609

Failure Mode Identifiers (FMI) ¹	
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18	Sensor supply fault.
19	Condition not met.
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SPECIFICATIONS AND RELATED MANUALS

Volume 2 of 2 - CAB

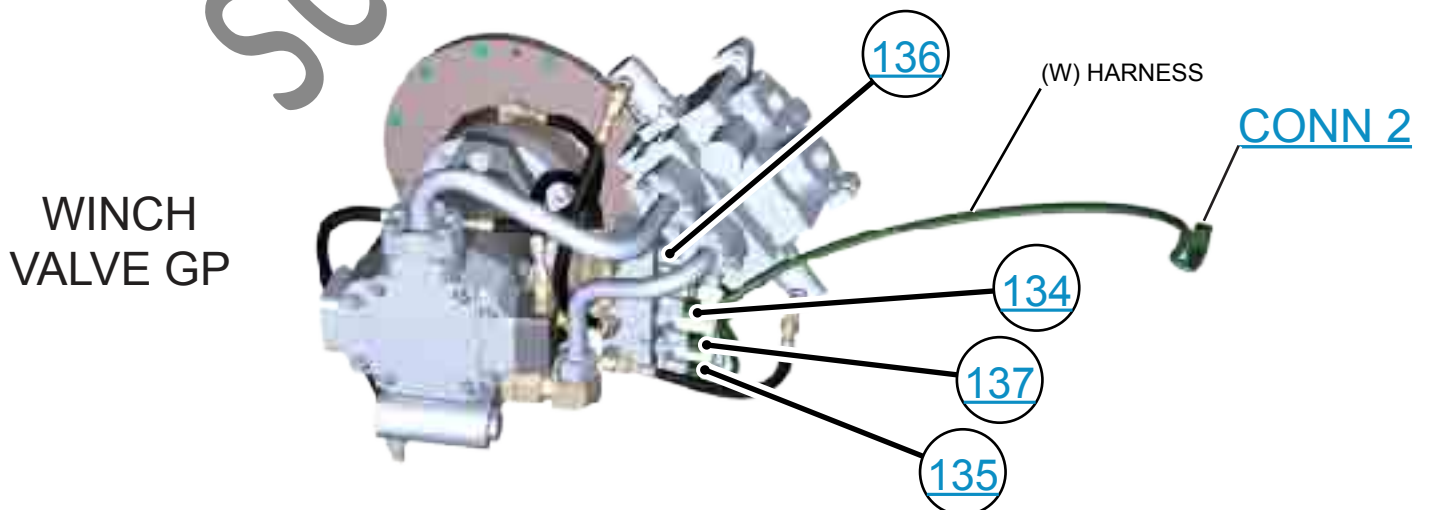
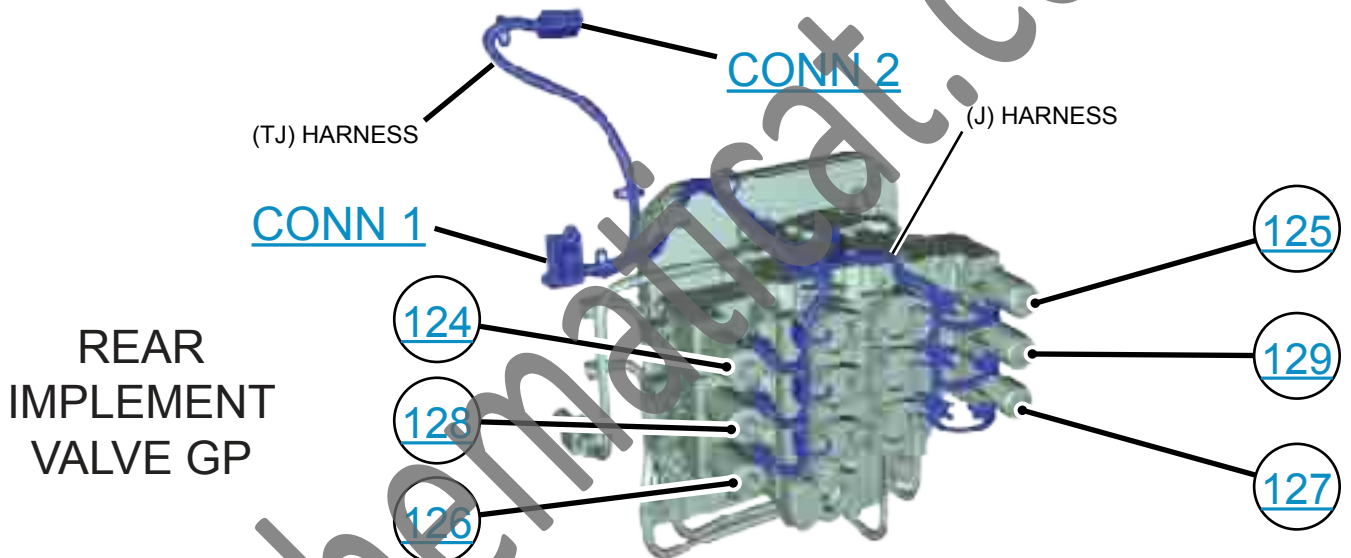
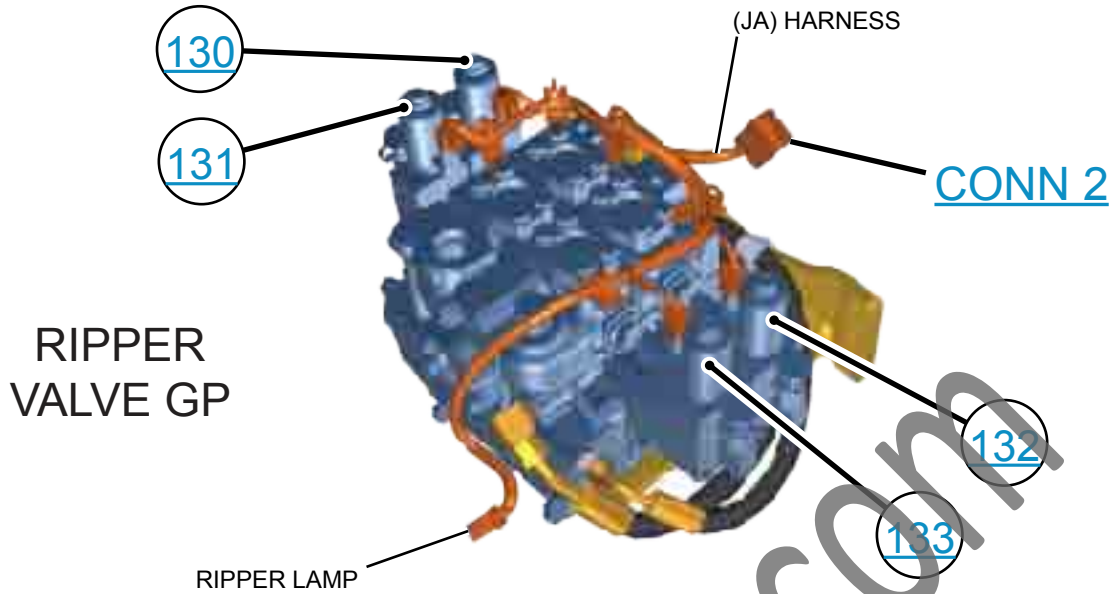


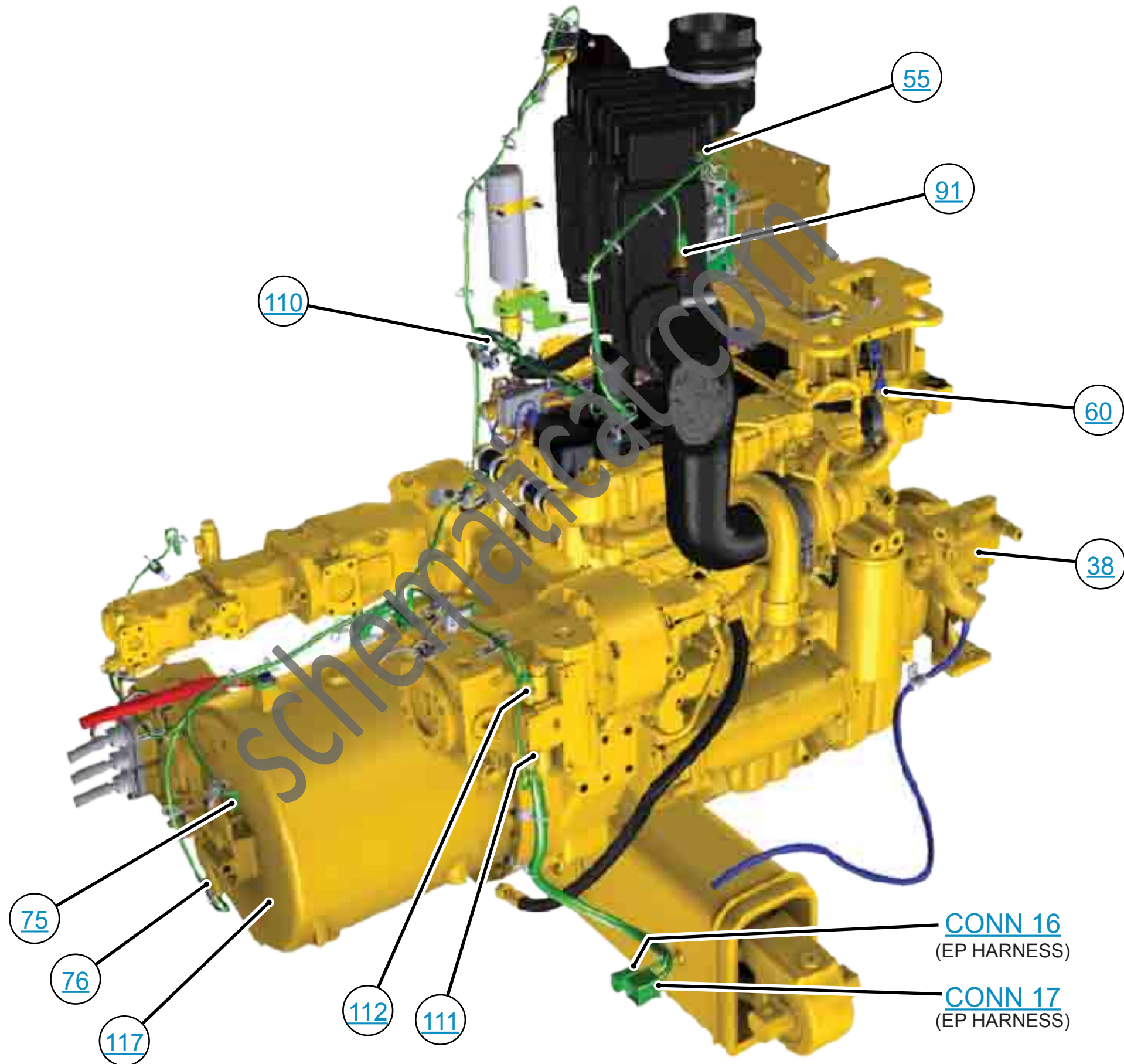
Related Electrical Service Manuals		
Title	Form Number	
Electric Starting Motor 42MT: 255-1234	SENR3581	
Electric Starting Motor 52MT: 296-5687	SENR3860	
C9 Common Rail Track-Type Engine:	RENR9312	
Power Train Troubleshooting:	KENR5160	
Monitoring System Troubleshooting:	KENR8246	

Resistor, Sender and Solenoid Specifications		
Part No.	Component Description	Resistance (Ohms) ¹
134-2540	Resistor: Terminating	120
152-8340	Solenoid: Reversing Fan	32.6 ± 1.6
172-2392	Solenoid: Parking Brake Dump Service Brake Dump	41.9 ± 2.1
174-4909	Solenoid: Brake Proportional	8.7 ± 0.4
239-1134	Solenoid: Start Aid	20
241-5895	Solenoid: Implement Lockout	33.8
281-2033	Resistor: HVAC	(1) Level: 5 (2) Level: 1.5 (3) Level: 0.75 (4) Level: 0
294-5272	Solenoid: Tilt (Left) Tilt (Right) Blade (Raise) Blade (Lower) Left Tilt Cylinder (Extend) Left Tilt Cylinder (Retract) Winch (In) Winch (Out) Function Valve #1 Function Valve #2 Drum Clutch Release Winch Low Speed Lock Ripper (Raise) Ripper (Lower) Shank (In) Shank (Out)	5 ± 0.3
300-3554	Solenoid: ARD Fuel Flow Diverter Actuator	Nominal: 31.1 ± 2.4 @ 25 ± 5°C (77 ± 9°F) Minimum: 23.3 @ -40°C (-40°F) Maximum: 50.3 @ 121°C (249°F)
324-6678	Sender: Fuel Level	Empty: 92 - 98 Full: 0 - 3.5
342-0636	Solenoid: NOx Valve Actuator	Nominal: 2.95 ± 0.2 @ 25°C (77°F) Maximum: 4.73 @ 150°C (302°F)
344-6043	Solenoid: NOx Flow Balance V Actuator	235
344-6590	Solenoid: ARD Fuel Pressure #1 Cont. Actuator	Nominal: 2.01 ± 0.2 @ 25 ± 5°C (77 ± 9°F) Minimum: 1.51 @ -40°C (-40°F) Maximum: 3.19 @ 121°C (249°F)

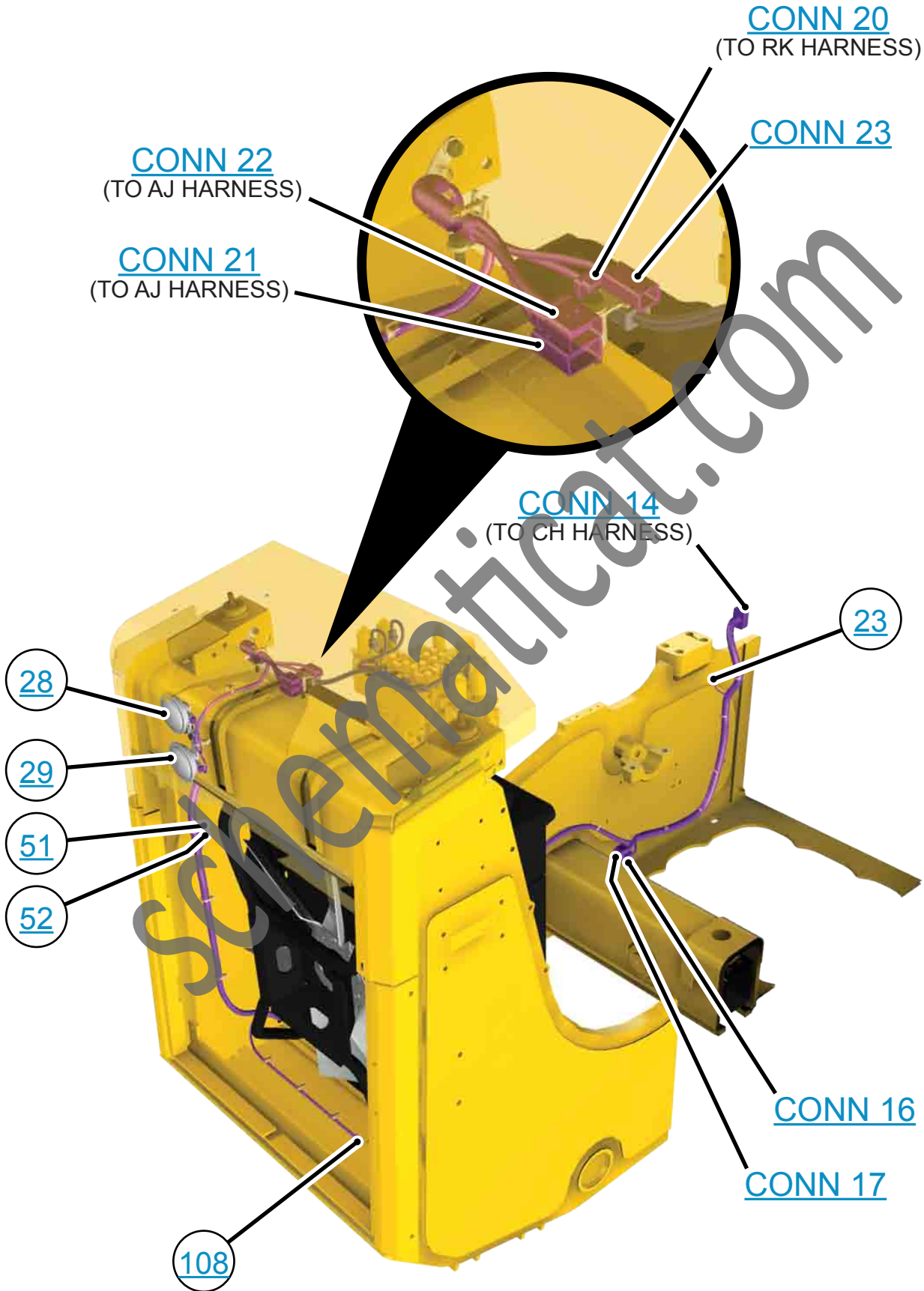
¹ At room temperature unless otherwise noted.

VALVE GROUPS VIEW

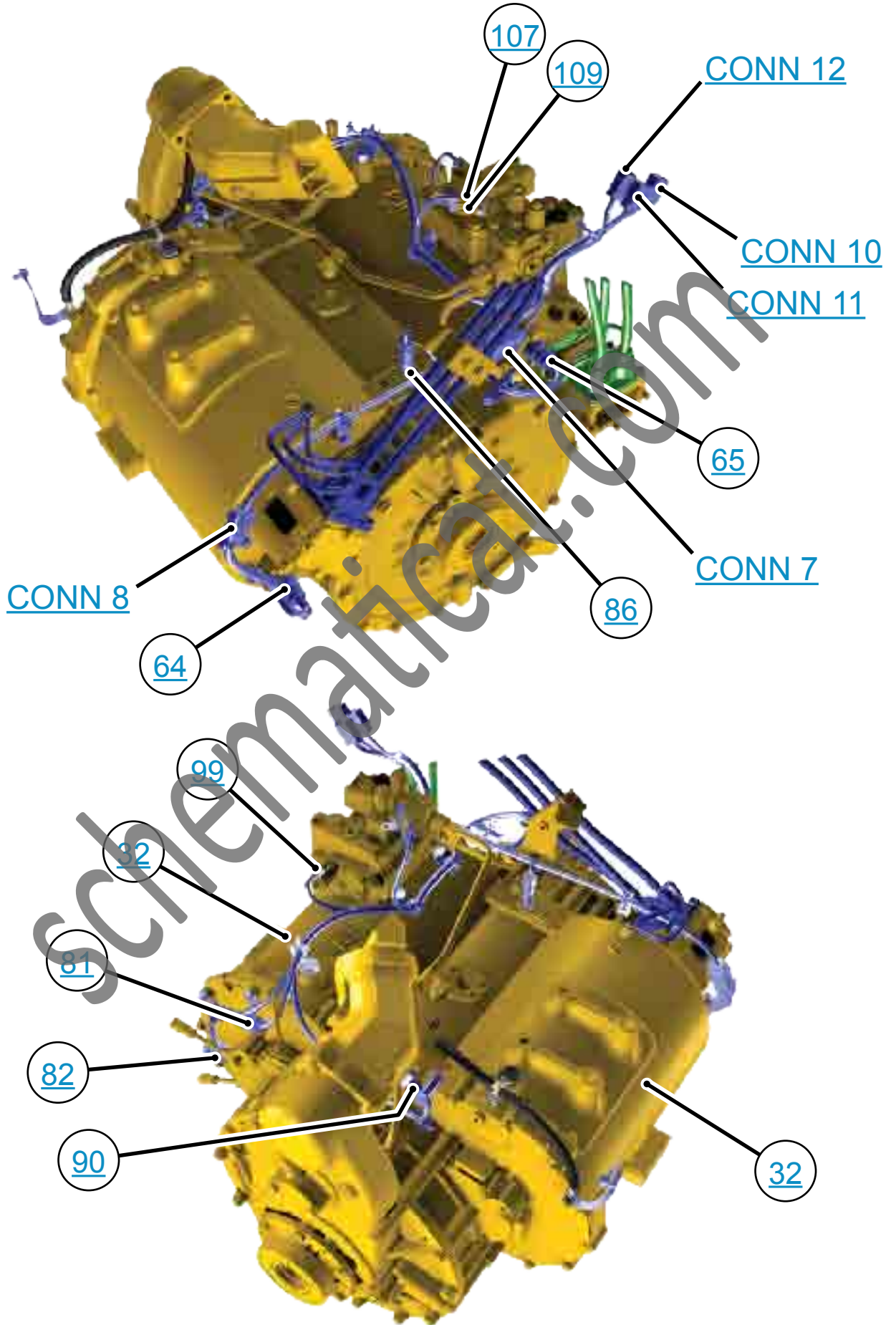




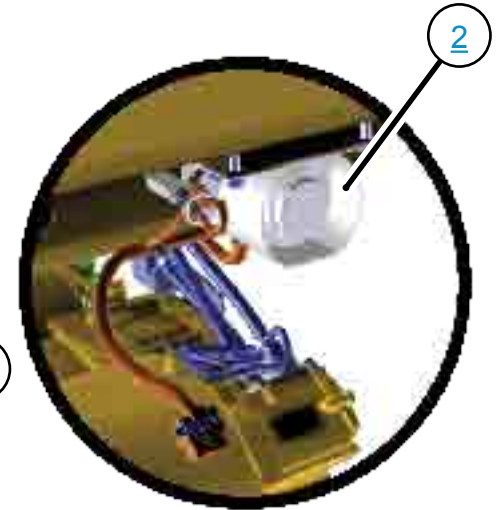
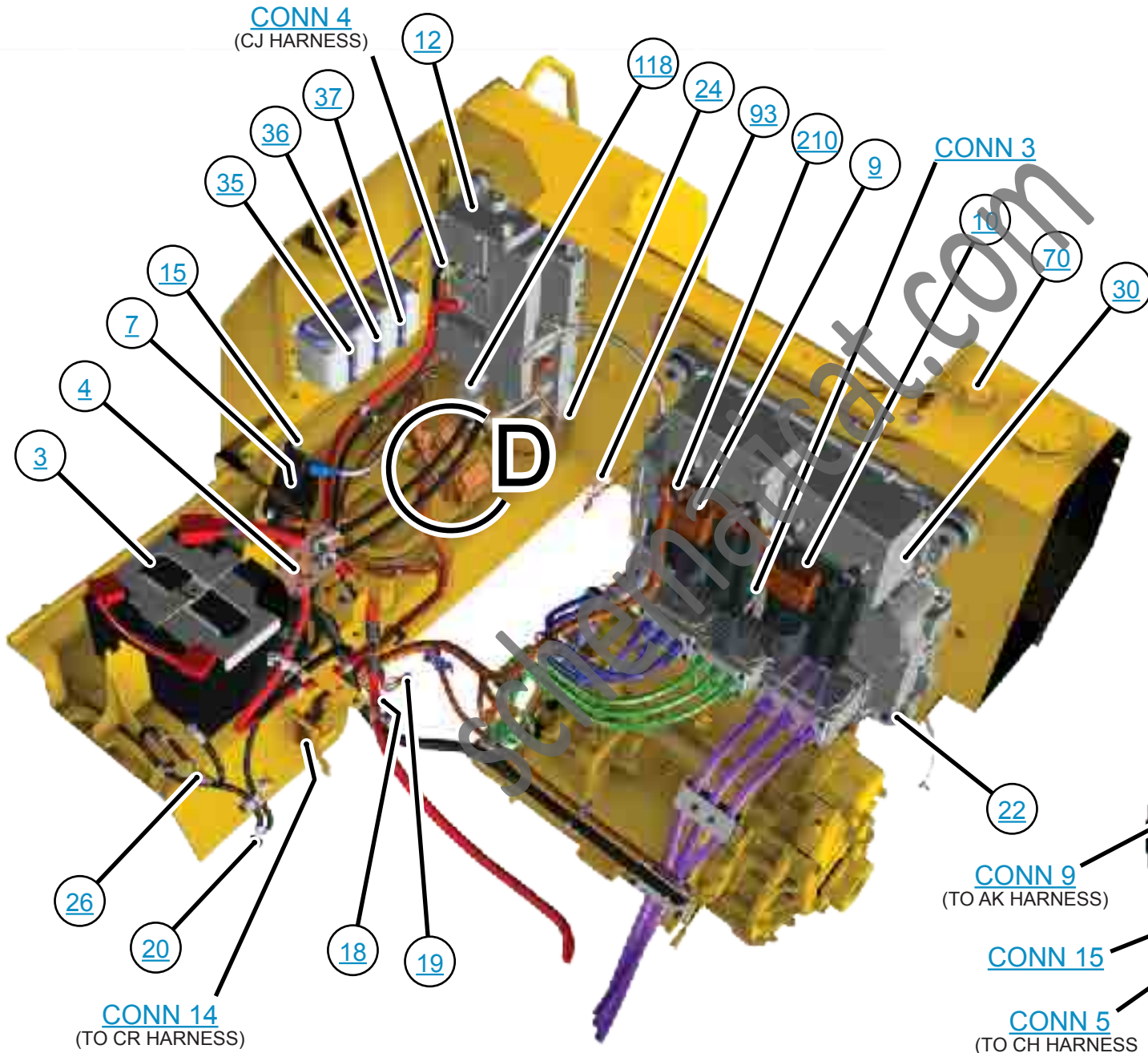
RADIATOR WIRING VIEW



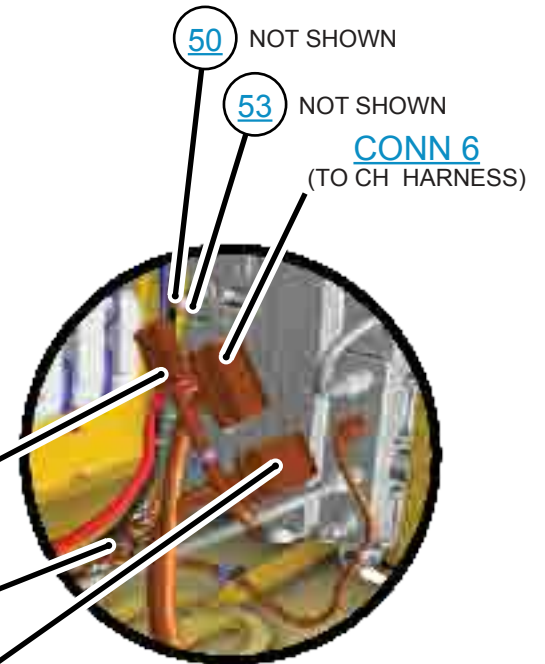
PROPULSION MODULE WIRING VIEW



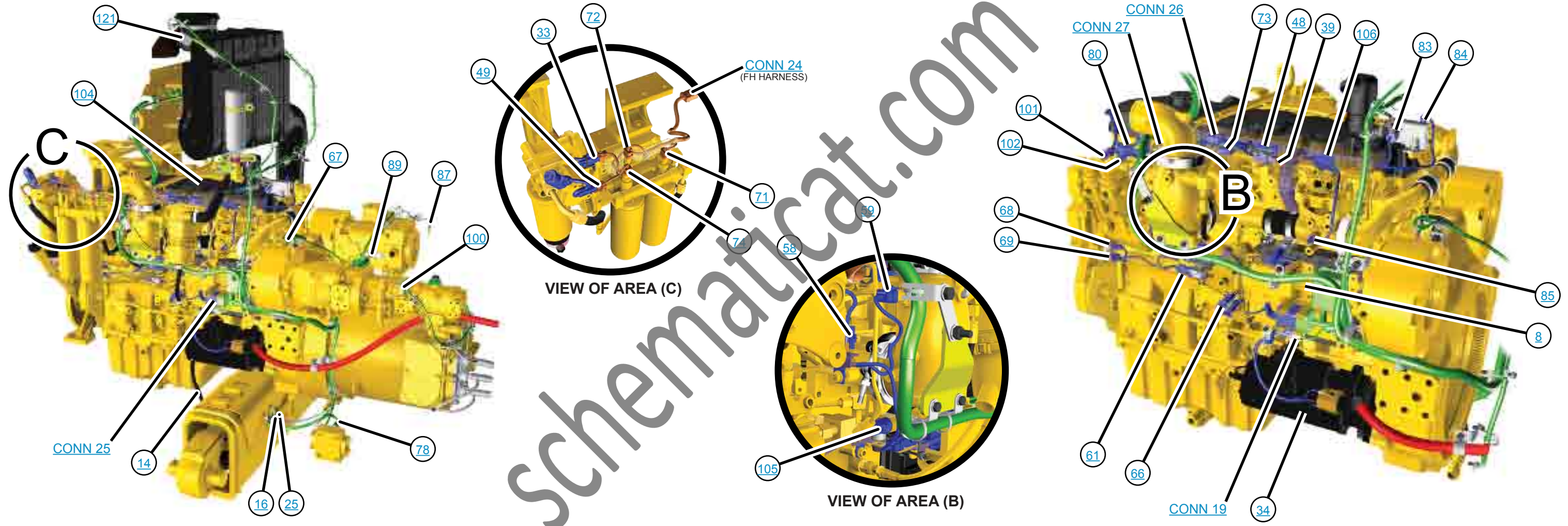
POWER MODULE VIEW



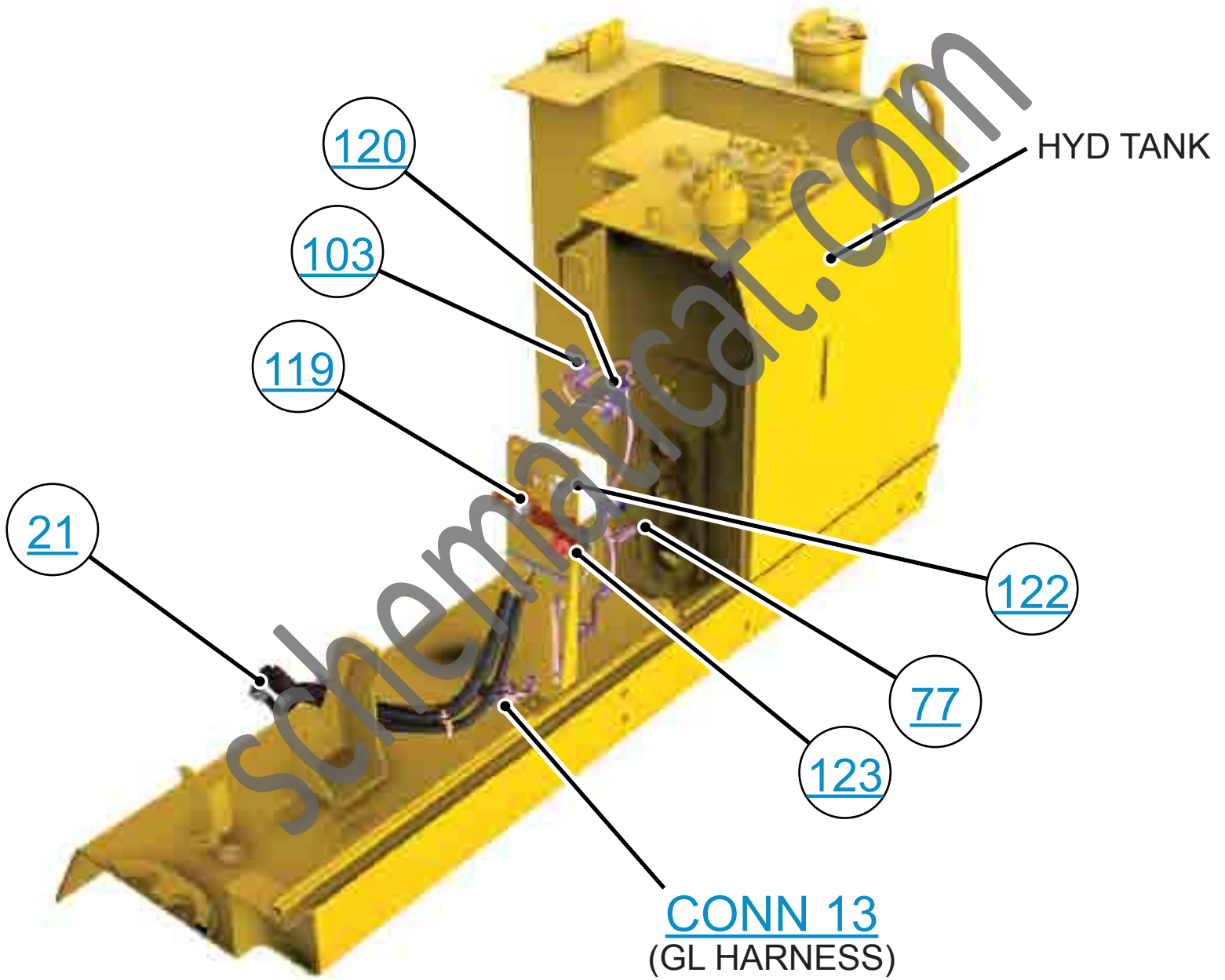
REAR VIEW



VIEW OF AREA (D)



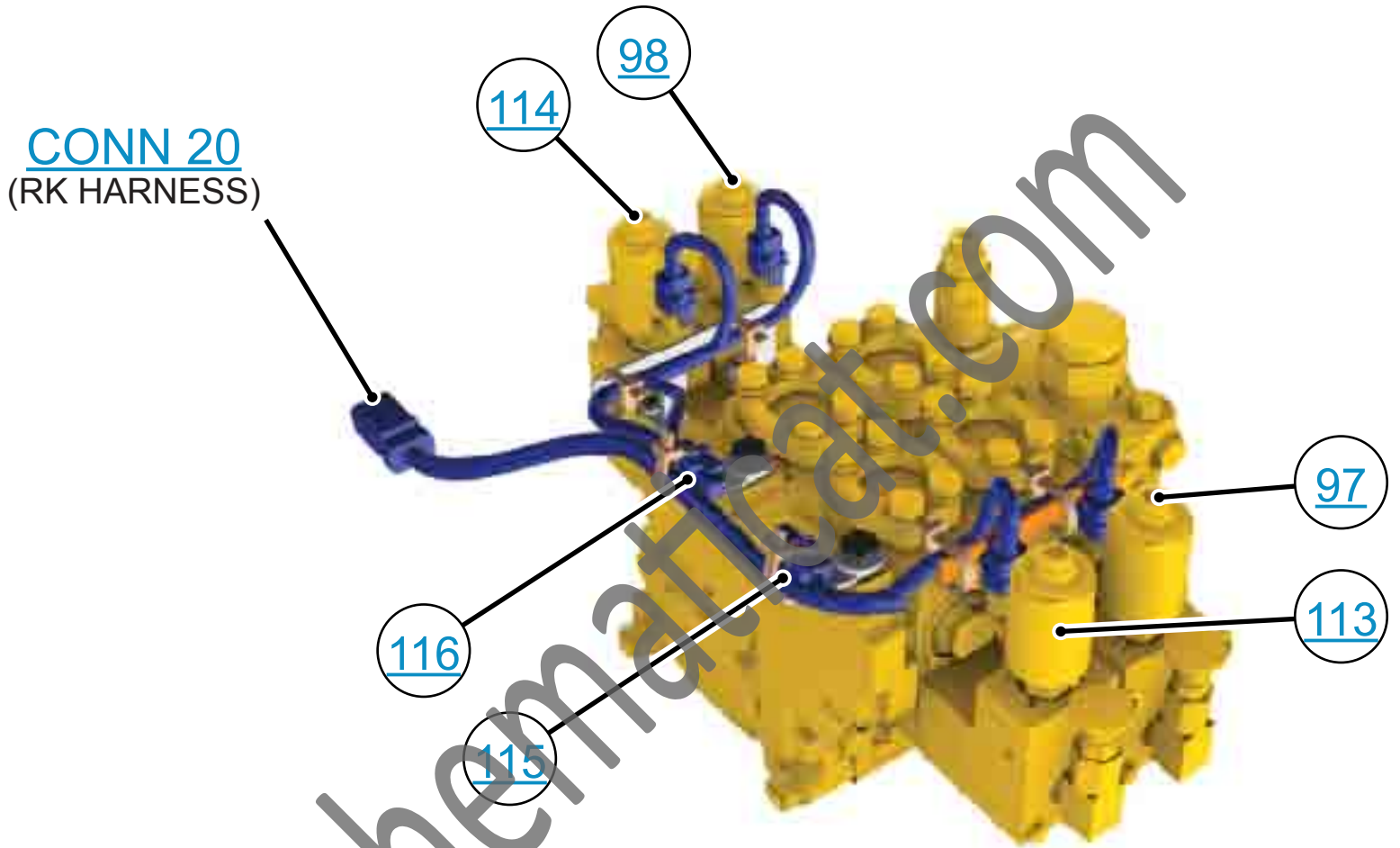
LEFT CHASSIS WIRING VIEW

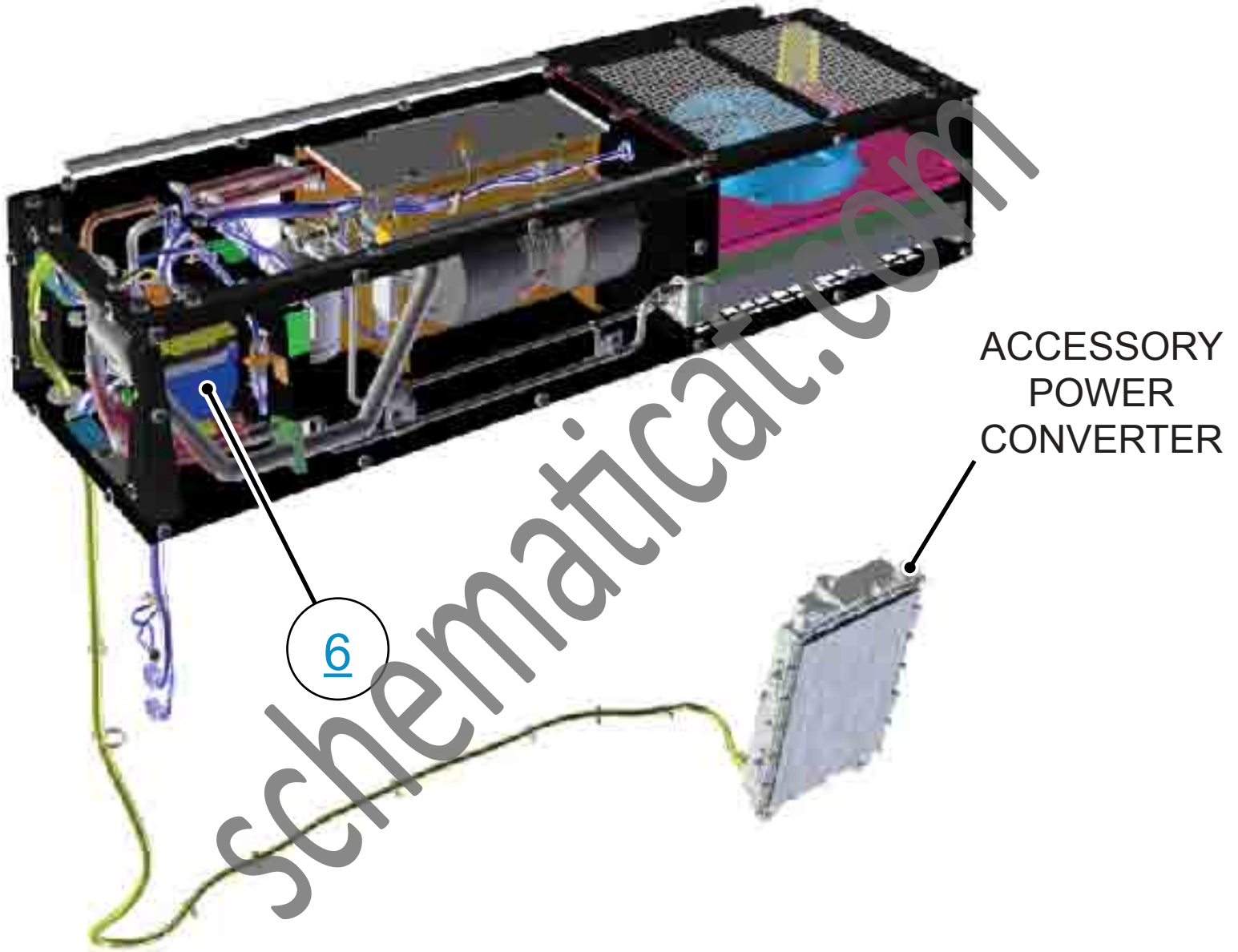


IMPLEMENT VALVE WIRING VIEW

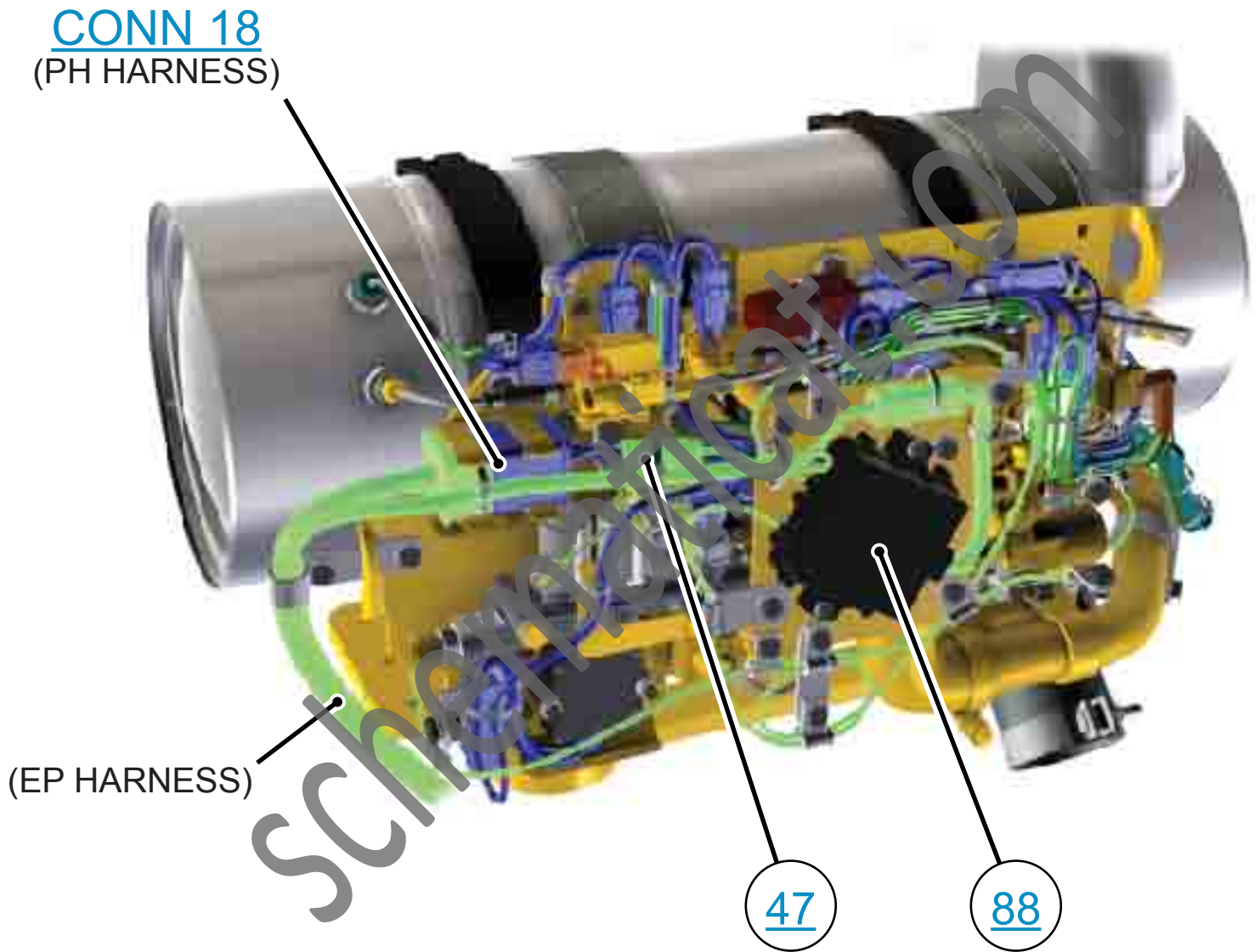


CONN 20
(RK HARNESS)

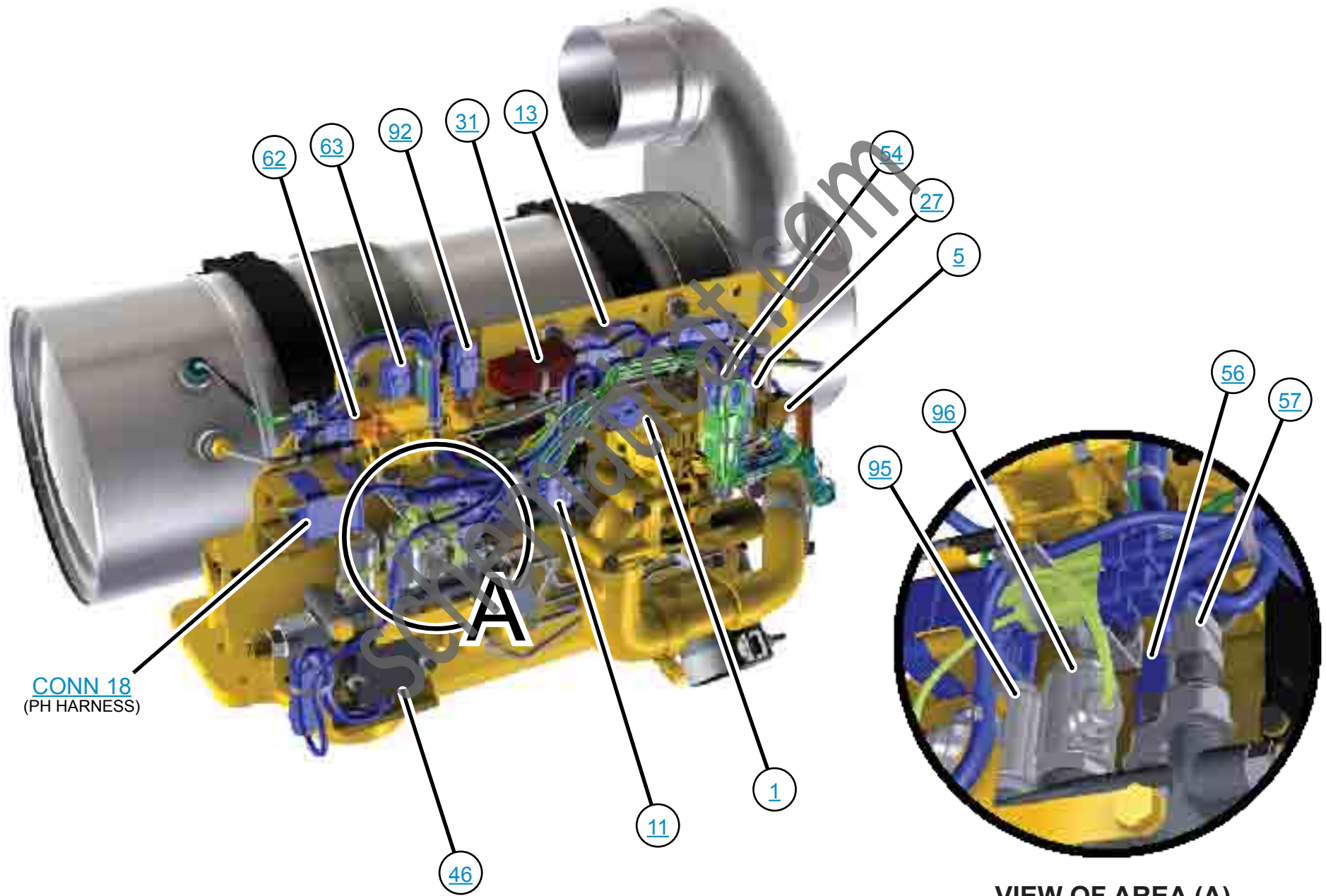




SOOT SENSOR WIRING VIEW

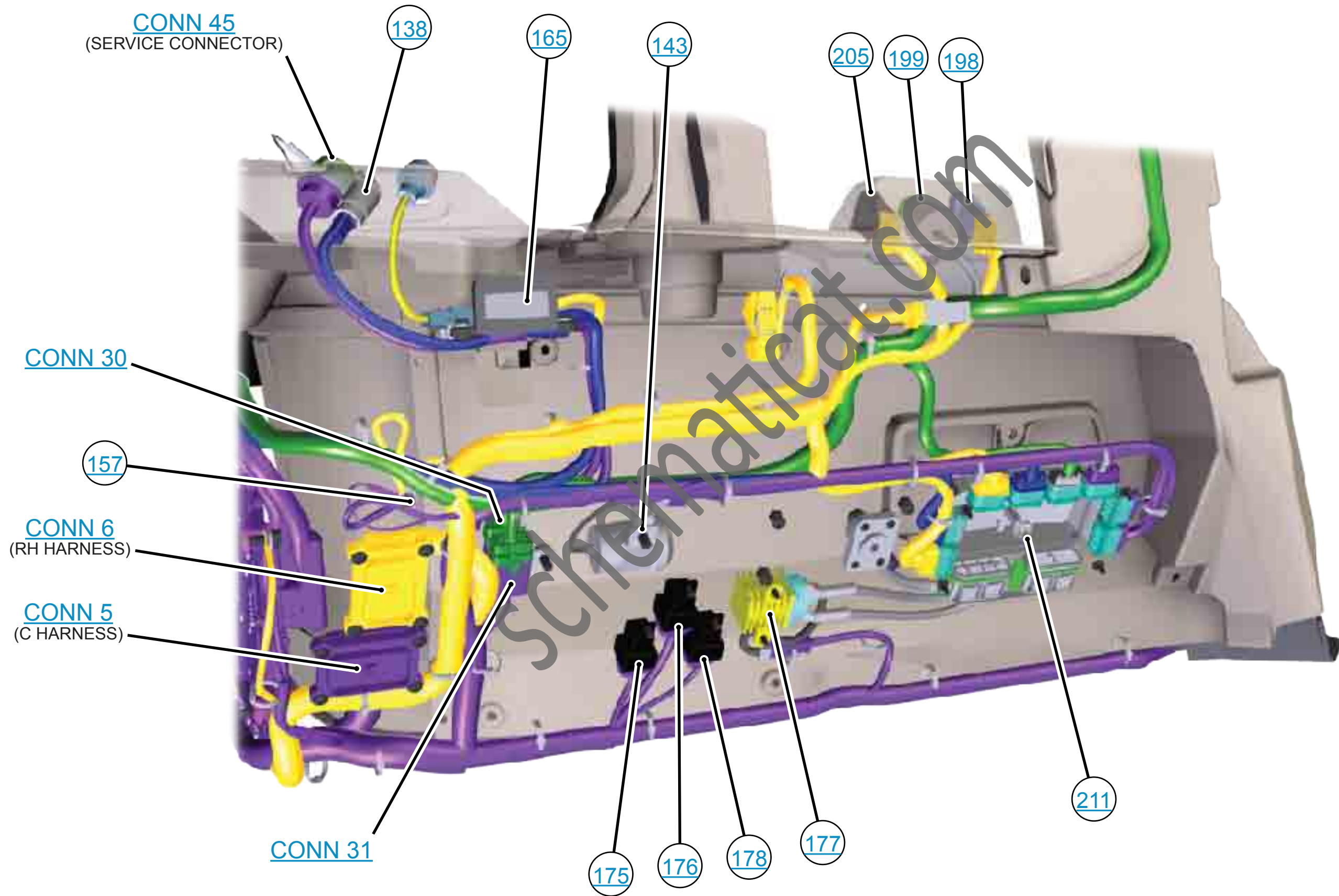


AFTERTREATMENT WIRING VIEW

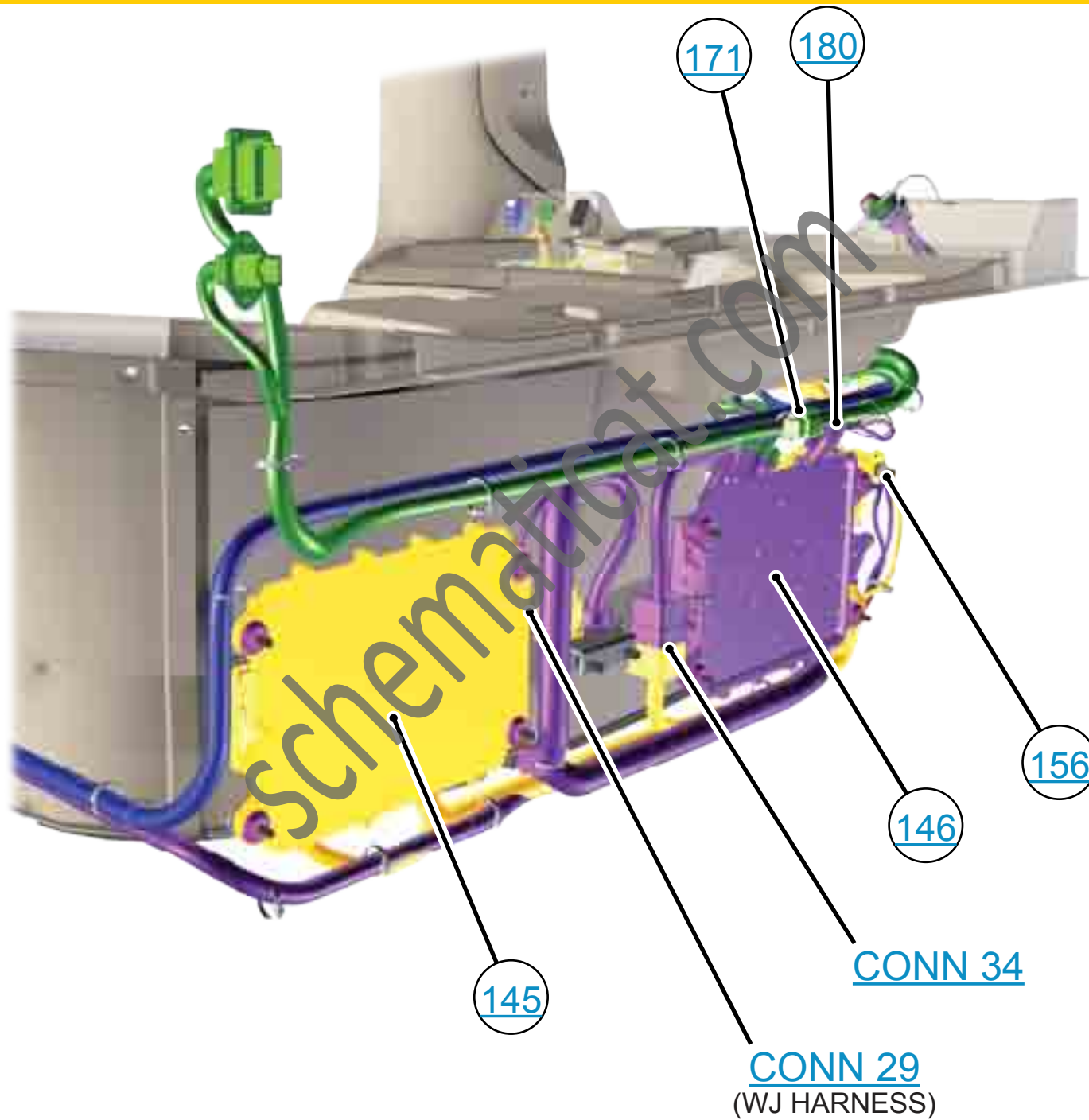


VIEW OF AREA (A)

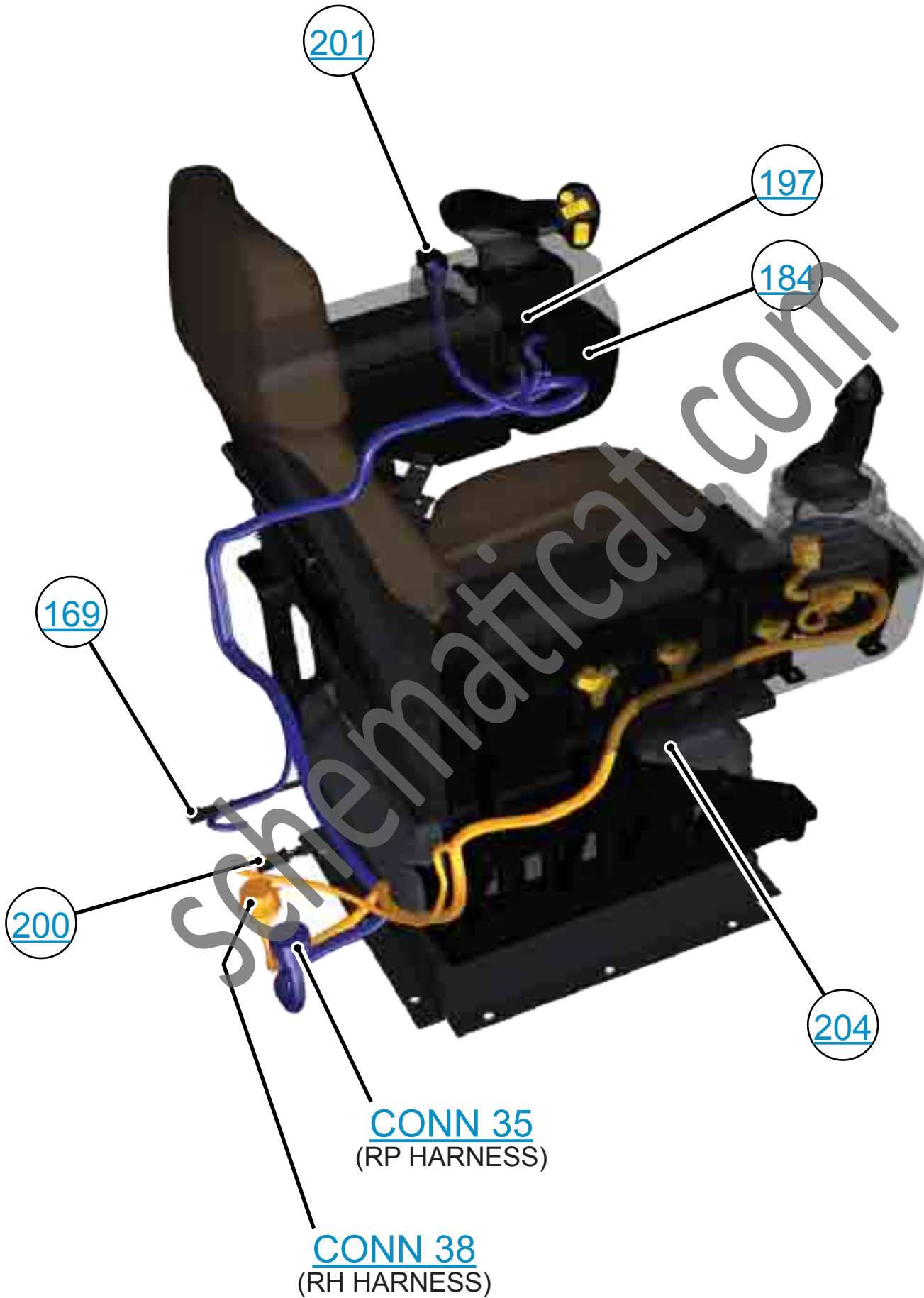
RIGHT SIDE CONSOLE OUTSIDE VIEW



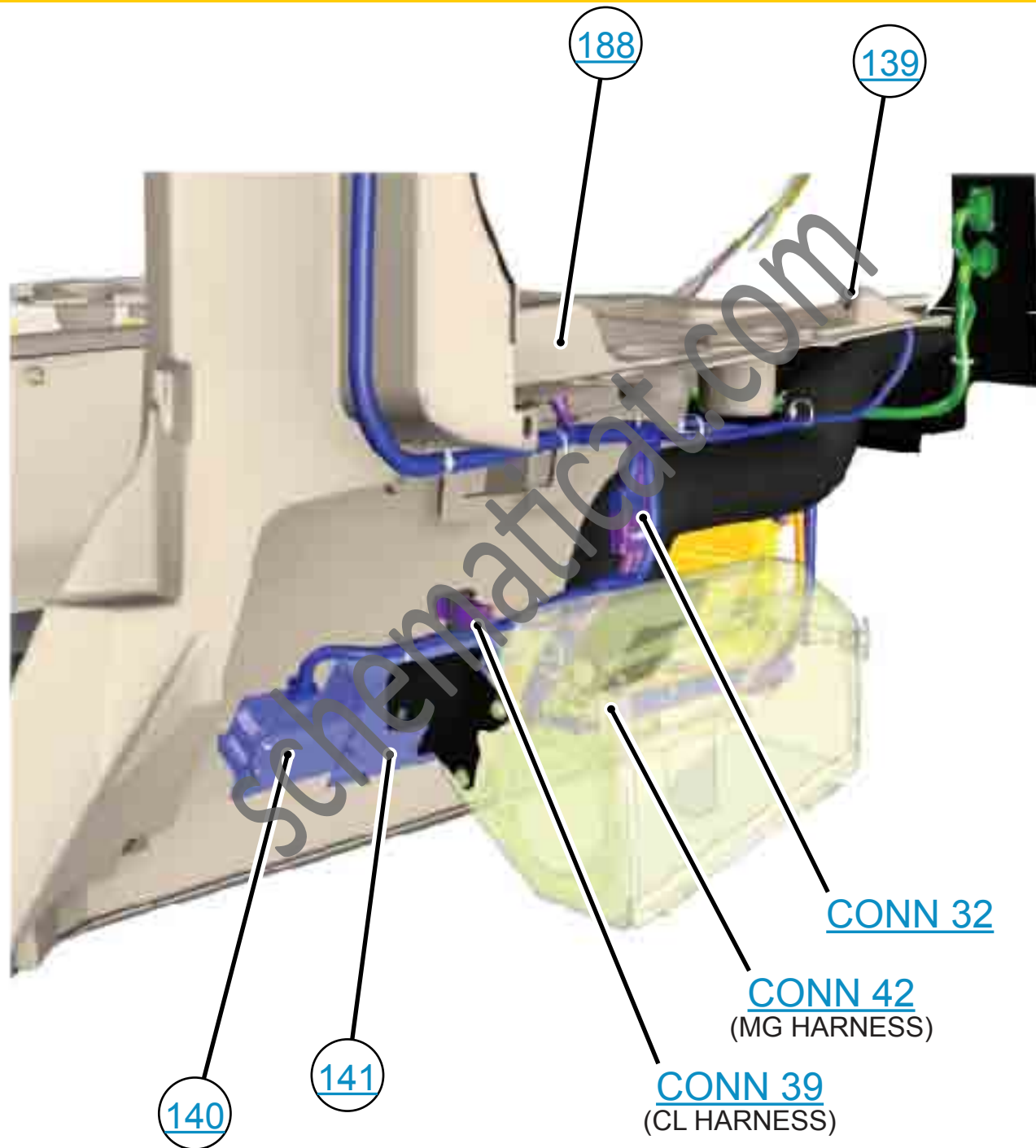
REAR CAB OUTSIDE VIEW

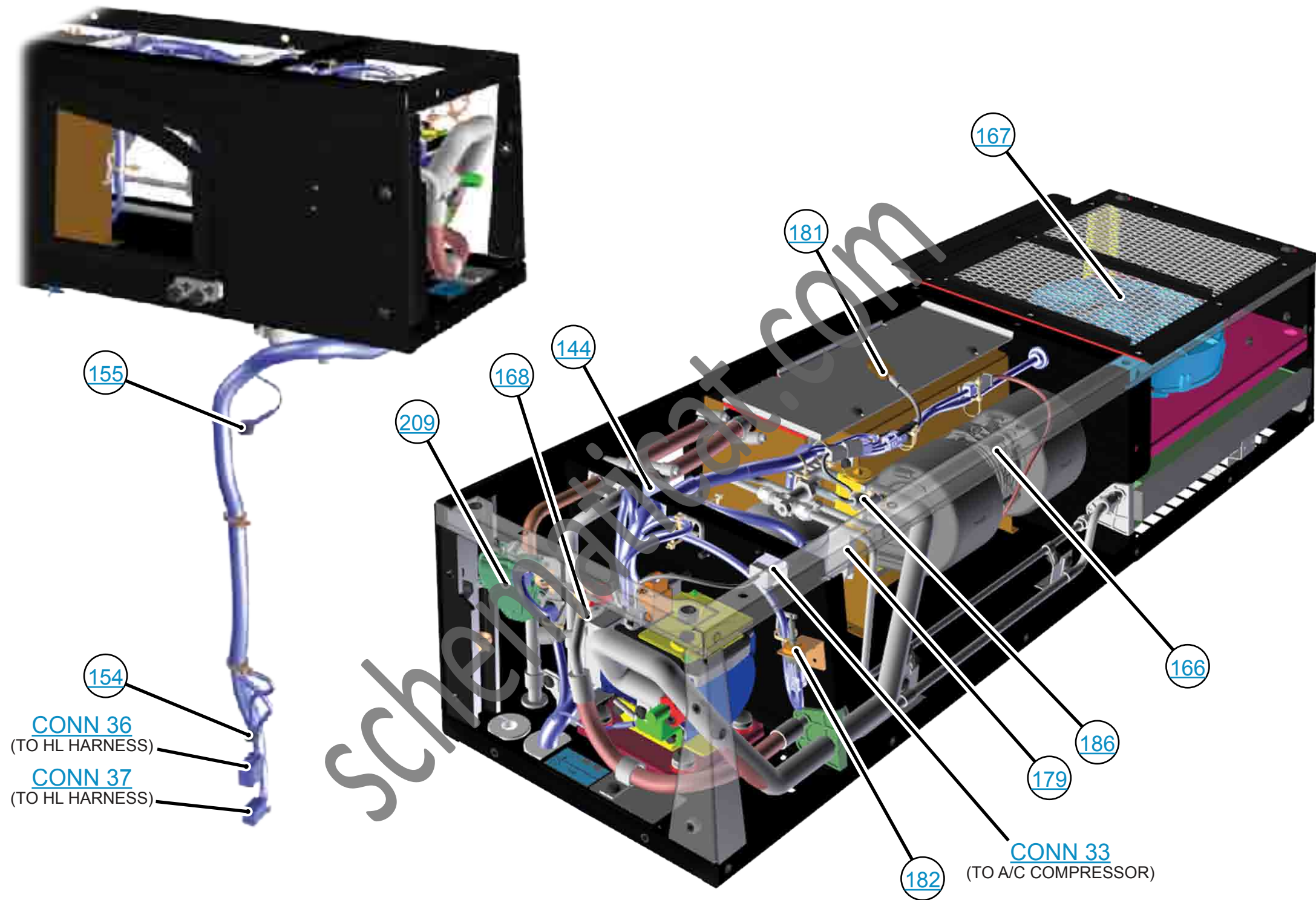


OPERATOR SEAT VIEW



LEFT CONSOLE OUTSIDE VIEW





HEADLINER WIRING VIEW

